STATE OF NEVADA
Department of Conservation & Natural Resources
DIVISION OF ENVIRONMENTAL PROTECTION
NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
protecting the future for generations
Brian Sandoval, Governor
Leo M. Drozdoff, P.E., Director
Colleen Cripps, Ph.D., Administrator

FACT SHEET
(pursuant to NAC 445A.236)

Applicant: Clark County Water Reclamation District
5857 E. Flamingo Road
Las Vegas, NV 89122

Permit Number: NV0024200

Location: Central Plant Membranes Phase 2 construction dewatering
Rochelle Ave. and Telephone Line Road
Las Vegas, Clark County, NV
Section 14, T21S, R61E MDB&M
Latitude: 36° 06' 45" N, Longitude: 115° 02' 16" W

Discharge Outfall: Groundwater will be collected in a system of pumping wells placed to dewater the construction site. The pumps will be connected to a discharge piping system and sediment settling tanks. The discharge will be directed via gravity to a reinforced concrete box (RCB) which discharges directly to the Las Vegas Wash.

Outfall 001: RCB
Latitude: 36° 06' 42.8" N **Longitude: 115° 02' 02.5" W**

General: The Applicant has applied for a new National Pollutant Discharge Elimination System (NPDES) permit, NV0024200, to discharge shallow groundwater encountered during construction of the Central Plant Membranes Phase 2 facilities. Related facilities to be constructed include the Membrane Filters Building, Membranes Equipment Building, Acid Waste Basin and Pump Station, Drum Screen, Ozone Contactor, Ozone Equipment Building, Filtrate Storage Tank, Chemical Buildings, and the Storage Facility. Of these, construction of only some of the facilities will require dewatering: the Membrane Filters Building, Acid Waste Basin and Pump Station, Drum Screen, and Ozone Contactor. A system of approximately 15 pumping wells will serve to dewater the site. All of the wells will be connected to a common header prior to the discharge being routed through sediment settling tanks and discharged 300-700 feet down-gradient to a reinforced concrete box (RCB), part of the Central Plant (Outfall) system. The system is tributary of the Las Vegas Wash (Wash).

Dewatering is expected to be required for only a portion of the project, and discharge is expected to last approximately 18 months. Monitoring of the discharge is required to ensure that surface waters are not degraded as a result of the construction dewatering discharge.

Flow: The maximum daily discharge from the construction dewatering will be permitted at 1.95 million gallons per day (MGD). The flow rate is based on anticipated dewatering rates, groundwater modeling and current groundwater elevation information.

Receiving Water Characteristics: The receiving water for the construction dewatering discharge is the Las Vegas Wash, which is the primary wastewater and stormwater drainage outlet for the Las Vegas Valley and surrounding watershed. The shallow groundwater encountered during the construction activities is generally background Wash water quality. To reduce sediment loads, settling tanks will be used as needed to filter the water prior to discharge to the Wash. The RCB discharge location is

approximately 1/3 mile west of the Wash, downstream of the Parshall Flume and existing plant discharge outfall. Monitoring of the discharge outfall will ensure that water quality is not degraded. Water quality standards for the beneficial uses designated in NAC 445A.2142, for the Upper Las Vegas Wash, are specified in NAC 445A.2156.

Site Groundwater: Within the project area the groundwater elevation is generally quite shallow, approximately 14-15 feet below grade. The local groundwater flow direction is east, towards the Las Vegas Wash.

Corrective Actions Sites: There are no remediation sites within a one-mile radius of the facility.

Well Head and Drinking Water Supply Protection: The facility is not within 6000' of a public supply well. A Wellhead Protection Area (WHPA) has not been established for this area.

Proposed Discharge Limits: Sampling and monitoring requirements are listed below in Table 1.

Table 1. Discharge Limitations, Sampling and Monitoring Requirements

Parameters	Units	Discharge Limitations		Monitoring Requirements		
		30-Day Average	Daily Maximum	Sampling Locations	Monitoring Frequency	Monitoring Type
Flow Rate [1]	MGD	M&R	1.95	001	Continuous	Flow meter, calculation
pH min [2]	S.U.	---	6.5	001	Monthly	Meter
pH max [2]	S.U.	---	9.0	001	Monthly	Meter
TDS [2]	mg/l	M&R	M&R	001	Monthly	Discrete
NH_3-N	mg/l	---	M&R	001	Quarterly	Discrete
TIN	mg/l	---	20	001	Quarterly	Discrete
NO_2-N	mg/l	---	M&R	001	Quarterly	Discrete
NO_3-N	mg/l	---	M&R	001	Quarterly	Discrete
TP-P	mg/l	---	M&R	001	Quarterly	Discrete
TPH [3]	mg/l	---	1.0	001	Quarterly	Discrete
VOC [3]	µg/l	---	M&R	001	Quarterly	Discrete
perchlorate [3]	µg/l	---	M&R	001	Quarterly	Discrete
Hardness [4]	mg/l	---	M&R	001	Quarterly	Discrete
Antimony [4]	mg/l	---	M&R	001	Quarterly	Discrete
Arsenic [4]	mg/l	---	M&R	001	Quarterly	Discrete
Barium [4]	mg/l	---	M&R	001	Quarterly	Discrete
Beryllium [4]	mg/l	---	M&R	001	Quarterly	Discrete
Boron [4]	mg/l	---	M&R	001	Quarterly	Discrete
Cadmium [4]	mg/l	---	M&R	001	Quarterly	Discrete
Calcium [4]	mg/l	---	M&R	001	Quarterly	Discrete
Chromium [4]	mg/l	---	M&R	001	Quarterly	Discrete
Copper [4]	mg/l	---	M&R	001	Quarterly	Discrete
Fluoride [4]	mg/l	---	M&R	001	Quarterly	Discrete

Iron [4]	mg/l	---	M&R	001	Quarterly	Discrete
Lead [4]	mg/l	---	M&R	001	Quarterly	Discrete
Magnesium [4]	mg/l	---	M&R	001	Quarterly	Discrete
Manganese [4]	mg/l	---	M&R	001	Quarterly	Discrete
Mercury [4]	mg/l	---	M&R	001	Quarterly	Discrete
Molybdenum [4]	mg/l	---	M&R	001	Quarterly	Discrete
Nickel [4]	mg/l	---	M&R	001	Quarterly	Discrete
Selenium [4]	mg/l	---	M&R	001	Quarterly	Discrete
Silver [4]	mg/l	---	M&R	001	Quarterly	Discrete
Thallium [4]	mg/l	---	M&R	001	Quarterly	Discrete
Zinc [4]	mg/l	---	M&R	001	Quarterly	Discrete

Table Definitions and Footnote Explanations are provided in Table 2.

Table 2. Table Definitions and Footnote Explanations

Term/ Footnote	Definitions/ Explanations
MGD	million gallons per day
001	Outfall 001, RCB outfall downstream of Parshall Flume in Las Vegas Wash
M&R	Monitor and report
TDS	Total Dissolved Solids
mg/l	milligrams per liter
TPH	Total Petroleum Hydrocarbons, purgeable and extractable, full range C_6-C_{40}.
VOC	Volatile Organic Compounds
µg/l	micrograms per liter
Footnote 1	Monitor continuously and report quarterly the maximum daily discharge for each monthly DMR reporting period.
Footnote 2	Sample and analyze monthly and report quarterly the values obtained for each parameter for each monthly DMR reporting period.
Footnote 3	Sample and analyze the discharge for TPH and VOC, and perchlorate, once per quarter. Analyze using EPA Methods 8015B and 624. Report TPH, perchlorate, and VOC on separate rows of the quarterly DMR form. For all VOC with detectable results, report the results of each compound separately on the quarterly DMR form.
Footnote 4	Sample and analyze for the listed Profile I metals once per quarter. Report results of each parameter on separate rows of the quarterly DMR form.

Rationale for Permit Requirements: The Division has established the monitoring requirements in Table 1 to ensure that water quality is not degraded as a result of project activities.

Flow: The discharge rate is estimated based upon current groundwater levels and groundwater modeling.

pH: 6.5 - 9.0, standard units. pH limits are based on the beneficial uses designated in NAC 445A.2156. Monitor monthly and report quarterly.

TDS: M&R. The shallow groundwater with naturally occurring elevated TDS levels would flow to the Wash if it was not intercepted by the dewatering system. Therefore, the TDS standard is not

applied to dewatering discharges in this area. This permit is for the interception and passage of groundwater and thus is exempted under the Colorado River Basin Salinity Control Forum's policy on groundwater interception.

Nitrogen compounds: NH3-N: M&R, TIN: 20 mg/l, NO2-N: M&R, NO3-N: M&R. Limits are based on the beneficial uses designated in NAC 445A.2156. Monitor and report quarterly.

TP-P: M&R. Included in permit requirements to ensure the beneficial uses designated in NAC 445A.2156 are protected.

TPH: 1.0 mg/l. Sample and report quarterly. The limit is the State standard for remediation projects. Groundwater data indicates non detection of all purgeable and extractable hydrocarbons. Sampling is required to ensure that Las Vegas Wash water quality is not degraded as a result of the project dewatering and discharge activities.

VOC: M&R. Sample and report quarterly. Groundwater data indicates non detection of most volatile organic compounds; the only exception was one detection of toluene, reported at 5.9 μg/l.

perchlorate: M&R. The requirement is to sample and report quarterly. Perchlorate was detected in one monitoring well, reported at 10 μg/l in a sample collected in May 2012.

Profile I metals: M&R. The requirement is to sample and report quarterly to ensure that Las Vegas Wash water quality is not degraded as a result of the project dewatering and discharge activities.

Schedule of Compliance: The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which the Administrator may make in approving the schedule of compliance:

- The Permittee shall achieve compliance with the discharge limitations upon issuance of the permit.

- Two weeks prior to commencing dewatering discharge, or by **December 1, 2013**, at the latest, the Permittee shall submit to the Division for review and approval two copies of an **Operations & Maintenance Manual** (**O&M**), for the proposed dewatering and discharge activities. The **O&M** shall include a Dewatering Plan providing dewatering discharge details including number and spacing of pumping wells, discharge routing, methodology and BMPs to be utilized. The **O&M** shall also include a Sampling and Analysis Plan summarizing the monitoring, sampling, analytical, and data reporting procedures for the proposed sampling locations. Before implementing changes to an approved **O&M**, the Permittee shall submit the proposed changes to the Division for review and approval.

- The Permittee shall notify the Division in writing within 14 days of initiating discharge, or by **December 15, 2013**, whichever comes first.

Proposed Determination: The Division has made the tentative determination to issue the proposed permit for a period of five (5) years.

Procedures for Public Comment: The Notice of the Division's intent to issue a NPDES permit for a five-year period, authorizing this facility to discharge directly to the Las Vegas Wash via a RCB, subject to

the conditions contained within the permit, is being sent to the **Las Vegas Review-Journal** for publication. The Notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all comments are to be submitted (via postmarked mail or time-stamped faxes, e-mails, or hand-delivered items) to the Division is **November 12, 2012, by 5:00 P.M.**

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Prepared by: Jeryl R. Gardner, P.E.
Date: October 2012

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